POSTERS

TCT-719

Effects of ranolazine in patients with acute coronary syndrome and stable angina according to whether they undergo percutaneous coronary intervention: Observations from the MERLIN-TIMI 36 Trial

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Background: Ranolazine is a late sodium current (late INa) inhibitor with anti-ischemic effects that is indicated for the treatment of stable angina. Patients with a history stable angina who subsequently are admitted with ACS are at particularly high risk of recurrent ischemic events. We examined the 1-year incidence of recurrent CV events in patients with prior angina who had PCI within 30 days of the index event and whether ranolazine offered any incremental benefit compared to placebo.
Methods: 3565 patients in the MERLIN-TIMI 36 trial, which randomized patients with NSTE-ACS to ranolazine vs. placebo, reported a history of prior stable angina. The primary endpoint was the composite of CV death, MI, or recurrent ischemia (RI) defined as ischemia w/ ECG changes, leading to hospitalization, prompting revascularization, or worsening of stable angina prompting intensification of therapy.
Results: In this cohort of patients with prior angina presenting with NSTEACS, 914 patients underwent PCI within 30 days of randomization. Overall, patients who underwent PCI had lower rates of CV death, but higher rates of RI and MI than patients who did not undergo PCI. Ranolazine reduced the risk of RI regardless of whether patients did or did not have PCI (21.3 v. 29.8%, HR 0.71, p=0.011 and 14.7 v. 18.2%, HR 0.81, p=0.03). Ranolazine significantly reduced the risk of the primary endpoint, CV death, and RI leading to revascularization in patients who underwent PCI, whereas there was no benefit among patients who did not undergo PCI.

	Hx of Angina/PCI within 30 days						Hx of Angina/No PCI						
	Ranolazine (n=472)		Placebo (n=442)				Ranolazine (n=1317)		Placebo (n=1334)				
Endpoint	No. with Event	1-yr Event Rate	No. with Event	1-yr Event Rate	HR	p value	No. with Event	1-yr Event Rate	No. with Event	1-yr Event Rate	HR	p value	P for interaction
CV death, MI, or recurrent ischemia	135	29.3%	164	38.8%	0.73	0.007	308	23.7%	339	26.3%	0.91	0.24	0.12
CV death	7	1.7%	17	3.8%	0.39	0.027	97	7.0%	84	6.3%	1.19	0.25	0.016
MI	46	9.9%	48	10.7%	0.89	0.58	100	7.7%	104	8.2%	0.98	0.9	0.71
Recurrent ischemia	98	21.3%	122	29.8%	0.71	0.011	179	14.7	222	18.2%	0.81	0.03	0.43
Recurrent ischemia leading to revasc	45	9.4%	72	16.8%	0.55	<0.01	32	2.7%	39	2.9%	0.82	0.39	0.18

Conclusions: Regardless of whether patients underwent PCI or not for the treatment of ACS, ranolazine reduced the risk of recurrent ischemia during the 1 year following admission. In patients who did have PCI within 30 days of admission, rates of the primary endpoint and recurrent ischemia were lower in patients treated with ranolazine.

Antithrombin and Antiplatelet Agents

Hall D

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TCT-720

Triple Versus Dual Antiplatelet Therapy in Patients with Acute Myocardial Infarction and Renal Insufficiency:Results from Korea Acute Myocardial Infarction Registry

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Background: Whether triple antiplatelet therapy is superior or not to dual antiplatelet therapy in patients with acute myocardial infarction (AMI) undergoing percutaneous coronary intervention in the era of renal insufficiency remains unclear.
Methods: As a part of the Korea Acute Myocardial Infarction Registry (KAMIR), 2288 AMI patients with renal insufficiency (GFR <60 ml/min) received either dual (aspirin plus clopidogrel; n=1587) or triple (aspirin plus clopidogrel plus cilostazol; n=701) antiplatelet therapy. Major adverse cardiac event (MACE) at 1- month and 1-year were compared between these two groups.
Results: Compared with the dual group, the triple group had a similar incidence of major bleeding events but a significantly lower incidence of in-hospital mortality. MACE rate at 1 month was significantly higher in the dual group than that of triple (16.3 % vs. 11.1%, p<0.05), which was mainly due to death rather than re-PCI (12.9 % vs. 9.1%, p<0.05). However, MACE rate at 1-year and MACE free survival day was not different between two groups.
Conclusions: In AMI patients with renal insufficiency, triple antiplatelet therapy exhibits a favorable in-hospital and short-term MACE event, but no difference in 1-year MACE free survival.

TCT-721

P2Y12 Reactivity units (PRU) to Predict Hyporesponsiveness to Clopidogrel in Patients with Chest Pain with Prior History of Coronary Artery Stenting in Emergency Department

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Background: Dual anti-platelet regimen has been shown to reduce major adverse cardiovascular events (MACE) after percutaneous coronary interventions (PCI). Variable response to clopidogrel can lead to pharmacodynamic failure, which may translate into clinical failure. We conducted a study to evaluate factors associated with hyporesponsiveness to clopidogrel with P2Y12 reactivity units by VerifyNow in previously stented patients presenting to the emergency department (ED) with chest pain while they were on dual anti-platelet regimen.
Methods: Hyporesponsiveness to clopidogrel was evaluated in a cohort of 531 consecutive patients with history of coronary artery stenting, presenting to ED with chest pain. Patients were labeled hyporesponders if they had P2Y12 Reactivity Units (PRU) ≥ 230. 221 patients (41.6%) had PRU≥230. A multivariable logistic regression model was used to determine the relationship between clopidogrel hyporesponsiveness and several potential risk factors, including gender, age, race, type I diabetes, type II diabetes, hypertension, smoking, chronic renal failure, and obesity.
Results: Out of this cohort of 531 patients, three predictors were statistically significant at p<0.05 (see table below): Type II diabetes (adjusted odds ratio, AOR=2.109), black race (AOR=2.165), and female gender (AOR=1.813). Age was a moderately significant predictor (p=0.058, AOR=1.167 per decade).

Variable	Estimate	Std Error	z value	Pr(>|z|)	AOR	95%	CI
Gender (female)	0.595	0.191	3.113	0.0019	1.813	1.248	2.641
Age (decades)	0.155	0.082	1.899	0.0575	1.167	0.996	1.372
Race (Black)	0.772	0.215	3.589	0.0003	2.165	1.423	3.312
Type I diabetes	-0.109	0.692	-0.158	0.8747	0.897	0.212	3.432
Type II diabetes	0.746	0.206	3.618	0.0003	2.109	1.410	3.166
Hypertension	-0.299	0.287	-1.041	0.2980	0.742	0.424	1.309
Smoking	-0.038	0.202	-0.190	0.8496	0.962	0.648	1.431
Chronic renal failure	0.110	0.233	0.475	0.6349	1.117	0.706	1.760
Obesity	0.015	0.194	0.076	0.9396	1.015	0.693	1.485

Conclusions: There is a high prevalence of clopidogrel hyporesponsiveness in patients presenting with chest pain. Out of multiple potential risk factors, type II diabetes and black race were the strongest predictors of clopidogrel hyporesponsiveness, followed by gender and age.

TCT-722

Platelet Function Testing Predicts Bleeding In Patients Exposed To Clopidogrel Undergoing Coronary Artery Bypass Grafting

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Background: Clopidogrel use prior to coronary artery bypass grafting (CABG) is associated with increased bleeding. Whether a bedside platelet function test can predict bleeding in patients exposed to clopidogrel undergoing CABG is unknown. The aim of the current study was to determine a level of platelet reactivity as measured by the VerifyNow™ $P2Y_{12}$ platelet function assay (Accumetrics, San Diego, CA) above which CABG can be undertaken in such patients without increased bleeding.